NAVAIR DMSMS Team

Counterfeiting Update

AIR 6.7.1.6
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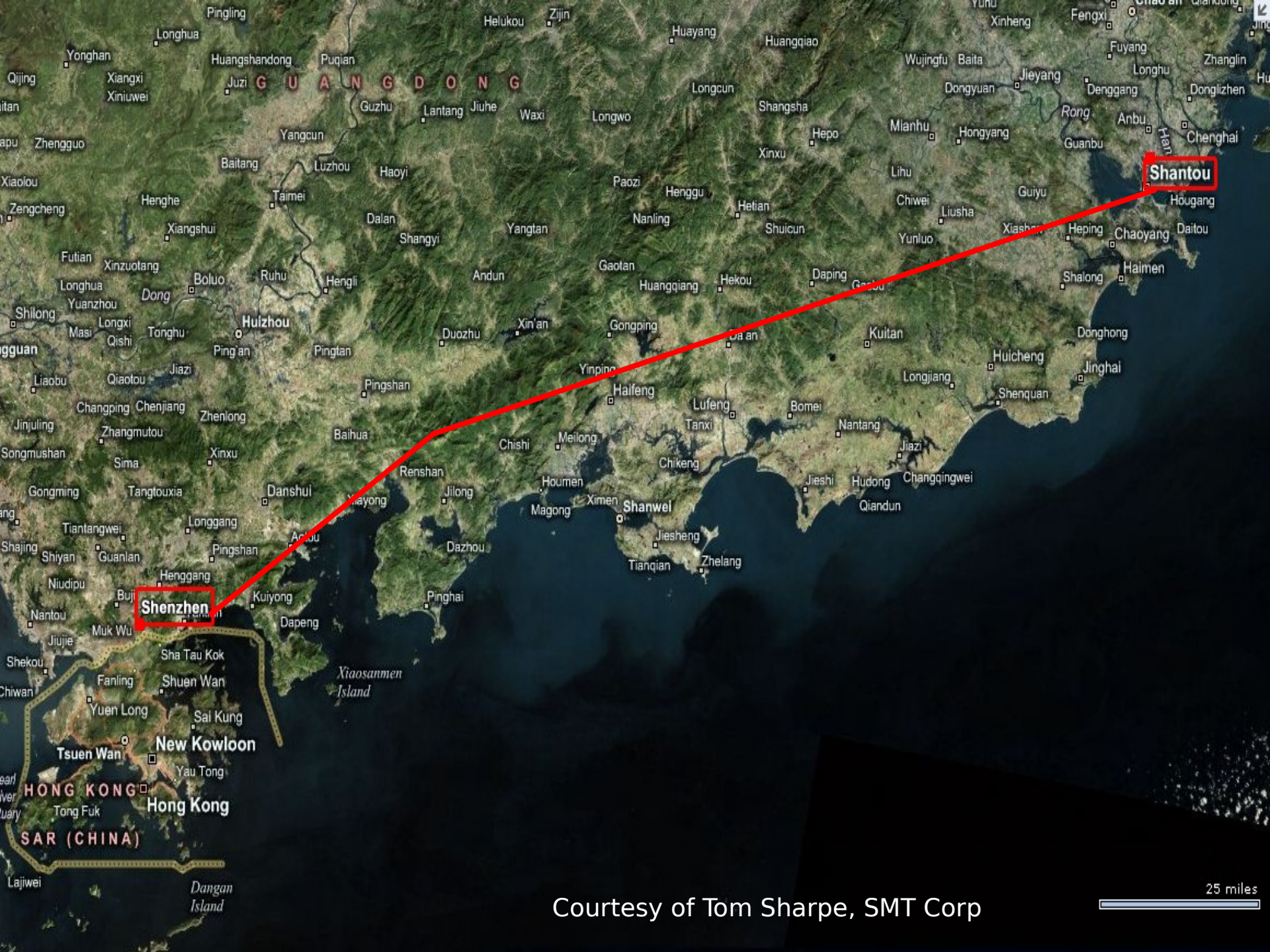
NAVAIR 10-258

Counterfeit Materiel

-DoD/DLA Counterfeit Materiel IPT

- Any materiel whose identity or pedigree has been deliberately altered, misrepresented or offered as an unauthorized product substitution is counterfeit documentation
- http://www.pbs.org/frontlineworld/stories/ghana804/

The Web of International Parts Trafficking



Courtesy of Tom Sharpe, SMT Corp

Vehicle Inspection Point Just Outside City of Shantou

Courtesy of Tom Sharpe, SMT Corp

Courtesy of Tom Sharpe, SMT Corp

Electronic Debris Stored in Front and Back Yards seen while driving through city streets

Courtesy of Tom Sharpe, SMT Corp

Shantou warehouse: Boards stacked, waiting for chip removal.

Courtesy of Tom Sharpe, SMT Corp

Workers extract plastics from discarded electronics in Guiyu, a few hours' drive northeast of Hong Kong. The city has 5,500 family workshops handling e-waste.
© 2006 The Seattle Times Company

Laborer de-soldering circuit boards over a coal-fired grill. Rock in the box is where boards are hit to remove solder. Pliers are used to pluck off chips which go into various buckets. The boards are then tossed into a pile for open burning. © BAN

*Taken from NASA Headquarters Brief, March 2007

Courtesy of Tom Sharpe, SMT Corp

Components on river bank drying

Courtesy of Tom Sharpe, SMT Corp

Courtesy of Tom Sharpe, SMT Corp

Courtesy of Tom Sharpe, SMT Corp

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Courtesy of Tom Sharpe, SMT Corp

Pulled components prepared for counterfeiting process

Courtesy of Tom Sharpe, SMT Corp

Courtesy of Tom Sharpe, SMT Corp

City of Shenzhen

China’s main entry point of counterfeit

Courtesy of Tom Sharpe, SMT Corp

Courtesy of Tom Sharpe, SMT Corp

Department of Commerce Study

- **NAVAIR funded an impact study**

- **Released 13 Jan 2010**
  - **http://www.bis.doc.gov/defenseindustrialbaseprograms/osies/defmarketresearchrpts/default.ht**

Survey results

- DLA Comments
- FRC Comments

Department of Commerce Study

- **Findings**
  - all elements of the supply chain have been impacted
  - there is a lack of dialogue between all organizations
  - companies and organizations assume that others in the supply chain are testing parts;
  - lack of traceability in the supply chain;
  - **insufficient chain of accountability within organizations**;
  - **recordkeeping by organizations is very limited;**
  - organizations do not know **who to contact** in the U.S. Government;
  - **stricter testing protocols and quality control practices** required;
  - **DOD organizations do not have policies** in place to prevent counterfeit parts from infiltrating their

Department of Commerce Study

- **Recommendations**
  - provide clear, written guidance to personnel on part procurement, testing, and inventory management;
  - implement procedures for detecting and reporting suspect electronic components;
  - purchase parts directly from OCMs and/or their authorized suppliers when possible, or **require part traceability** when purchasing from independent distributors and brokers;
  - establish a list of **trusted suppliers**
  - utilize third-party escrow services to hold payment during part testing; adopt realistic schedules for procuring electronic components;

Department of Commerce Study

- **Recommendations**
  - modify **contract requirements** with suppliers to require improved notices of termination of the manufacture of electronic components and of final life-time part purchase opportunities;
  - ensure physical destruction of all defective, damaged, and substandard parts;
  - expand use of **authentication technologies** by part manufacturers and/or their distributors;
  - **screen and test parts** to assure authenticity prior to placing components in inventory, including returns and buy backs;
  - **strengthen part testing protocols** to conform to the latest industry standards;
  - verify the integrity of test results provided by contract testing houses;

Department of Commerce Study

- **Recommendations**
  - perform **site audits** of supplier parts inventory and quality processes where practical;
  - maintain an internal database of suspected and confirmed counterfeit parts; and
  - **report all suspect and confirmed counterfeit components** to federal authorities and industry associations.

Department of Commerce Study

Recommendations-DoD

- consider establishing a **centralized federal reporting** mechanism for collecting information on suspected/confirmed counterfeit parts for use by industry and all federal agencies;
- modify Federal Acquisition Regulations (FAR), including Defense Federal Acquisition Regulations (DFAR), to allow for **“best value” procurement,** as well as require U.S. Government suppliers and federal agencies to systematically report counterfeit electronic parts to the national federal reporting mechanism;
- issue clear, unambiguous legal guidance to industry and U.S. federal agencies with respect to civil and criminal liabilities, reporting and handling requirements, and points of contact in the Federal Bureau of Investigation regarding suspected/confirmed counterfeit parts;

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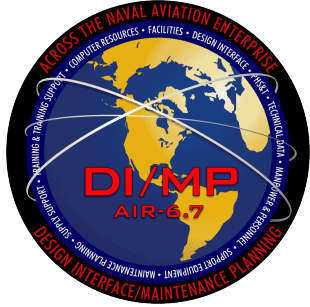
Recommendations- DoD

- establish federal **guidance for the destruction**, recycling, and/or disposal of electronic systems and parts;
- establish a dialogue with law enforcement agencies on the potential need to increase prosecution of counterfeiters;
- establish a government data repository of electronic parts information and for disseminating best practices;
- develop international agreements covering **information sharing**, supply chain integrity, border inspection of electronic parts shipped to and from their countries, related law enforcement cooperation, and standards for inspecting suspected counterfeits;
- address funding and parts **acquisition planning** issues within DOD and industries associated with the procurement of obsolete parts.

Response to Counterfeit Components and Materiel

“Approved for Public Release; Distribution Unlimited - 09-513

OSD-ATL and DLA IPT



Definition: Any materiel whose identity or pedigree has been deliberately altered, misrepresented or offered as an unauthorized product substitution is counterfeit.

Scope: Supply chains with known vulnerability to counterfeiting / unauthorized product substitution.

Outcome: Establishment of a DoD Anti-Counterfeit Program

1. **Policy**
2. **Training**
3. **Standardization Process**
4. **Reporting (GIDEP, Law Enforcement)**
5. **Metrics**

Training

Procurement
- QSLD
- Sourcing
- Risk Management

Receiving
- Documentation
- Receiving Inspections

Technicians / Artisans
- Identification
- Reporting-PQDR or RODS

Leadership / Management
- Awareness
- Counterfeit Plan and Process
- Reporting
- Metrics

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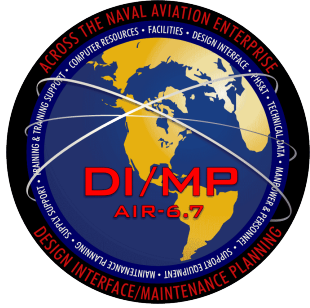

- Trained 443 Artisans / 100+ staff personnel from 3 FRCs on counterfeit components detection/awareness
- Completed Assessment of the NASA JPL micro-electronic training course for modification to DoD application
- Worked with DAU to develop a Counterfeit Awareness Course as a CLL module
- Presented finding to 2M instructors for incorporation into the annual
  re-certification program
- DASN-ALM Counterfeit IPT
- DoD Counterfeit IPT

DLA Initiatives 5961/5962

- **FY08 Product Quality Deficiency Report (PQDR)**
- **<u>244</u> Valid PQDR's**
- **<u>161</u> (66%) Contractor Caused**
  - **91 (56.4%) Unapproved Substitution**
  - **32 (19.9%) Manufacturer Defect**
  - **23 (14.3%) Suspect Counterfeit**
  - **15 (10.8%) Other**

Source: DSCC Brief to NDWG 3/12/09

DLA Initiatives

Qualified Suppliers List – Distributors (QSLD)

- **QSLD will provide a list of qualified distributors**
  - **Procurement policy completed**
  - **Criteria and provisions completed**
  - **Application is complete**

- **Industry responses favorable**
  - **Multiple conferences and meetings**
  - **RFI responses mostly positive**

Source: DSCC Brief to NDWG 3/12/09

Qualified Suppliers List – Distributors (QSLD)

- **QSLD Web site established**
  - **Electronics:**
    http://www.dscc.dla.mil/offices/sourcing_and_qualification/offices.asp?section=QSL
  - **Fastners:**
    http://www.dscp.dla.mil/gi/prod_services/qsl.htm

Source: DSCC Brief to NDWG 3/12/09

SAE AS 5553

Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition

Sources of Supply

- ORIGINAL COMPONENT MANUFACTURER
- FRANCHISED DISTRIBUTOR
- INDEPENDENT DISTRIBUTOR
- BROKER DISTRIBUTOR

SAE AS 5553

Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition

ADOPTED by DoD 31 Aug 2009

PARTS AVAILABILITY

PURCHASING PROCESS

- **RISK STACK CHART**
- **SUPPLIER ASSESSMENT PYRAMID**
- **PROCUREMENT RISK MITIGATION**

SUPPLY CHAIN TRACEABILITY

PROCUREMENT CONTRACT REQUIREMENTS

- **SAMPLE CONTRACT CLAUSES**

SAE AS 5553

Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition

PRODUCT ASSURANCE

- **SAMPLE AUTHENTICITY VERIFICATION PROCESS FLOW**
- **TEST EVALUATION RISK STACK CHART**

MATERIAL CONTROL

- **CONTROL OF SCRAP OR SURPLUS PARTS OR ASSEMBLIES**
  - **Control of Suspect or Confirmed Counterfeit Parts**

REPORTING

- **Government Industry Data Exchange Program (GIDEP)**
- **ERAI**
- **Government Investigative Authorities**
- **Law Enforcement Agencies**

Summary

- DoD's Next Step
  1. **Policy**
  2. **Training**
  3. **Standardization Process**
  4. **Reporting (GIDEP, Law Enforcement)**
  5. **Metrics**

- NAVAIR/FRCs Actions
  - **Counterfeit Component Plan**
    - **Procedures/ Process**
    - **Identification Training**
    - **Reporting**

Questions ?

ACROSS THE NAVAL AVIATION ENTERPRISE
COMPUTER RESOURCES • FACILITIES • DESIGN INTERFACE • PHS&T • TECHNICAL DATA • MANPOWER & PERSONNEL • SUPPORT EQUIPMENT • MAINTENANCE PLANNING • SUPPLY SUPPORT • TRAINING & TRAINING SUPPORT •
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DESIGN INTERFACE/MAINTENANCE PLANNING